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ABSTRACT

This assessment of the future job market for social science graduates is made both generically and separately for certain disciplines. The definition of the social sciences follows the USOE definition and includes: anthropology, archeology, economics, history, geography, political science, sociology, criminology, international relations, urban studies, demography, and all area studies. The projection of social science graduates at all degree levels who will enter the job market in 1980 compared to expected openings in social science occupations finds that graduates exceed the openings by eleven to one. The supply-demand balance for these social science graduates, however, is not as gloomy as this ratio might indicate. Since the training of a social science or other liberal arts major is more likely to engender a broader view of human affairs than a more narrow, vocationally-oriented education, the breadth of a social science education will continue to be valuable in the conduct of business and government. Marketable, vocationally-oriented skills are important adjuncts, however, to gain entry into the job market. (Author/KE)

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**The Employment Outlook for
Social Science Majors
in the South**

Eva C. Galambos

**U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION**

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Contents

	Page
Foreword	iii
I. Introduction	v
II. The Supply of Social Science Graduates	1
III. Occupational Demand	3
IV. Supply and Demand for PhD's in the Social Sciences	11
V. Summary and Conclusions	20

Foreword

A function of the SREB Manpower and Education project, with partial funding from the Exxon Education Foundation, is to assess the employment outlook in various occupational fields and for particular areas of study. Most of its publications have dealt with fields for which a fairly close correspondence exists between academic field and occupational application. Within the recent past, it has become increasingly evident that the need for career guidance is crucial for students pursuing the less vocationally-oriented studies.

The social science major at the undergraduate level accounts for a substantial proportion of the higher educational output. The employment perspective of students pursuing these majors often falls somewhere between the kind of definite identification with a particular world of work which characterizes students in professional fields and the less decisive attitude of many liberal arts students who often delay career decisions until their senior year.

The pages which follow will prove helpful to those who have responsibilities for career guidance or curriculum planning in the social sciences. The liberal arts in general are under closer scrutiny today than ever before. The consensus among educators, however, does not view the placement problems of the liberal arts graduate as cause for abandoning liberal educational values. The social sciences, in particular, need to be sustained vigorously for their contribution of knowledge to help solve many problems of today's complex world. They make their impact both in graduate, research education (to which the discussion in Part IV is directed), and at the undergraduate level, where social science insights and applications can be fed into the everyday experience of people in their roles as citizens and neighbors.

Winfred L. Godwin
President

Introduction

Projecting the demand and supply balance or imbalance for social science majors is fraught with even more pitfalls than is the projecting of fields such as engineering, accounting or education. The usual problems of any manpower projection, such as the difficulty of anticipating sudden changes in national priorities and therefore in employment¹, are augmented in the social sciences by additional uncertainties. Even for graduates in fields such as engineering and accounting, the job market extends beyond specifically labeled occupations; for graduates in the social sciences the job market is still more poorly defined.

There is no all-encompassing generic occupational title of "social scientist" with an accompanying projection of demand, in the comprehensive U.S. Census classification system of 421 occupational titles. In this occupational classification system there are, of course, specific titles such as history teacher, planner, economist and sociologist. But experience through the years has shown only limited correspondence between specific fields of study in the social sciences and entry into particular occupations. Social science graduates in various specialties, whether it be economics or anthropology, in the past have found employment not only in jobs labeled economist or anthropologist but also as managers and museum guides, as real estate brokers or correctional counselors, to name only a few examples.

The converse is also true. Just as many social science graduates work in other fields, so does a substantial proportion (19.5 percent) of persons classified as social scientists in the 1974 National Survey of Scientists and Engineers come from non-social science disciplines.¹

There is an additional problem in projecting the supply and demand situation for social science graduates. An engineering or accounting graduate at the bachelor's level is usually considered qualified for many engineering or accounting jobs. A social science graduate in economics or sociology at the bachelor's level, however, is not considered to be ready as a full-fledged economist or sociologist. In 1974, 25 percent of the persons classified as social scientist had only a bachelor's degree, while 30 percent had a master's, and 45 percent a Ph.D. degree.² Thus, except for graduates with an advanced degree in one of the social sciences, it is hazardous to assume close correspondence between available graduates and job openings in the social science specialties.

A further problem concerns the data needed in dealing with manpower projections for social scientists. From the education community perspective, for example, the U.S. Office of Education

(USOE) taxonomy of fields of study classifies psychology as a separate field excluded from the social sciences, and social work appears under "public affairs." Other groups, however, tend to classify psychology and social work as part of the social sciences.³ The definition of social science in this report follows the USOE definition and includes the following disciplines: *anthropology, archeology, economics, history, geography, political science, sociology, criminology, international relations, urban studies, demography and all area studies*. This definition generally conforms to the designation of social scientists used by the 1974 National Survey of Scientists and Engineers.⁴

Despite these difficulties, an attempt is made herein to assess the future job market for social science graduates generically and, also, separately for certain disciplines. This evaluation is made under the full realization that an education in one of the social sciences is usually fairly broad-based, as in the humanities, and that one of the advantages traditionally ascribed to a broad-based or liberal education is flexibility for synthesizing and being adaptable in a variety of work situations.

The Supply of Social Science Graduates

During the 1960's the growth in the supply of social science graduates was explosive. Not only did the annual number of bachelor's graduates more than double from 1964 to 1972 both for the nation and in the Southern region, but a larger proportion of total students was attracted to the social sciences. In 1964 in the U.S. as a whole 14.2 percent of all bachelor's degrees were awarded in the social sciences; by 1971 the proportion had risen to 18.7 percent. The popularity of the social sciences in the late 1960's possibly reflected students' concern with social problems, with many of them "turned off" by fields such as engineering and the physical sciences. The increase in social science enrollments and graduates, however, was somewhat weaker in the South at all degree levels than for the nation as a whole, as shown in Table 1.

Table 1

Percentage of Graduates with Degrees in Social Sciences

	Bachelor's		Master's		Doctoral	
	U.S.	SREB Region	U.S.	SREB Region	U.S.	SREB Region
1964	14.2	16.4	8.4	6.6	11.4	9.6
1971	18.7	16.9	7.5	6.5	11.9	10.1
1972	18.2	16.0	7.3	6.5	12.7	10.3
1980 proj.	17.7	16.9	7.2	5.2	13.4	10.4

Source: U.S. Office of Education, *Projections of Educational Statistics to 1984-85*, (Washington, D.C.: U.S. Government Printing Office, 1975) and SREB projections for the Southern region.

The surge in social science interest at the undergraduate level may be moderating, with a drop in the percentage of total bachelor's degrees in social sciences produced in 1972 both nationally and at the regional level. (The slight decline at the master's level in social sciences may be more a function of increased interest by students to obtain advanced degrees in other fields in order to compete for jobs, than of a decline in interest in the social sciences.) Historians reported a 12 percent and six percent decline from 1971 to 1974 in history undergraduate enrollments and bachelor's degrees, respectively.

Comparison of freshman choices of majors in 1974 and 1969 also points to a decline in the future share of social science degrees. In 1969, 14.9 percent of all the nation's freshmen indicated a social science major. By 1974, this had dropped to 10.5 percent. Social sciences in these surveys include psychology and social work, as well as the other social sciences.⁵

As part of a comprehensive projection of the supply of college graduates in the South in 1980⁶, the SREB Education and Manpower project has developed projections of the supply of social science graduates. The method entails projecting to 1980 the number of degrees at all levels and adjusting (a) for the number of degrees of graduates at the bachelor's level who continue immediately with graduate studies, (b) for a small percentage of females who become full-time homemakers upon graduating from undergraduate school and (c) for new advanced degree recipients who are estimated already to be working full-time in their fields of study while pursuing advanced degrees. These adjustments transform the initial number of projected degrees into "market-ready" first time aspirants for social science job openings.

Table 2

Social Science Market-Ready Supply of Graduates
Southern Region, 1980

	Bachelor's	Master's	Doctoral	Total
1972 degrees	35,966	3,405	672	40,043
1980 projected degrees	43,800	3,980	780	48,564
1980 projected Market-Ready (Less)	29,960	2,340	625	32,925
No. estimated to have teaching certificates (Equals)	3,220			
1980 projected Market-Ready exclusive of those with teaching certificates	29,080		625	29,705

Occupational Demand

The above projections treat social science graduates as a labor supply pool undifferentiated by social science specialties. Although later in this report an attempt is made to examine certain specialties in some detail, at this point only the total supply is compared with the projected openings in 1980 for nine major occupational categories. These nine categories include each major occupational title in the list of 421 such titles in the U.S. Census classification system that is directly related to any of the disciplines included on the supply side of the social sciences. Each major occupational title includes varying numbers of subtitles. For example, the occupational title "economist" includes 48 subtitles covering a range from business economist to Federal Security Agency welfare specialist, or forest economist to sales analyst. "Other Social Scientists" covers job titles such as anthropologists and geographers that are not separately classified.

Regional projections of occupational openings for these nine classifications were prepared as part of the SREB Manpower and Education comprehensive manpower projections for 1980.⁷ The two data sources used to obtain the projected occupational openings for college graduates are the series prepared by the Department of Economic Security in each of the 14 Southern states for the 1970-1980 decade and the state projections of 1980 employment by industry of the National Planning Association. The latter projections by industry were transformed into projections by occupation through application of the same methods employed in the respective Department of Economic Security projections. The projections include openings generated by industrial and underlying population growth, and by deaths and retirements.

The projections shown in Table 3 include only those expected to be filled by college graduates. The percentages of total projected openings to be filled by college graduates and by graduates with five or more years of college were obtained by extending the 1960-70 U.S. trend of change in educational attainment in each occupation to 1980. The percentages of all openings in each occupation projected to be filled by graduates with four years, and with five or more years of college are shown in Columns 3 and 4.

As shown in Table 3, the total demand in 1980 for the Southern region for the nine occupations considered to be "social scientists" ranges from 2,100 to 2,700 with 60 percent of that demand (or 1,200-1,700 openings) "reserved" for graduates with at least a master's degree. As shown earlier, the total number of masters' and Ph.D. degrees for 1980

Table 3

Projected Occupational Openings in the Southern Region,
Social Scientist Occupations, 1980

	Projected Annual Openings All Degree Levels		Estimated 1980 Percentages of Annual Openings to be Filled by College Graduates with:		Projected Number of Openings for Graduates with MA or Ph.D. Degrees	
	DES ¹	NPA ²	4 years college	5 or more years college	DES ¹	NPA ²
Economists	1,041	1,183	36%	39%	406	461
Political Scientists	37	11	21	59	22	24
Sociologists	24	39	14	70	17	27
Urban & Regional Planners	224	99	25	53	119	158
Other Social Scientists	113	230	18	54	61	124
College Teachers in:						
Economics	118	184	1	96	113	177
History	95	186	2	94	89	175
Sociology	211	274	3	91	192	249
Other Social Sciences	223	307	3	92	205	282
Total	2,086	2,743			1,224	1,677

¹Departments of Employment Security²National Planning Association

for the region is projected as 3,980 and 870 respectively. Even after adjusting the supply downwards to account for advanced degree candidates estimated to have been employed full-time in their own fields while still in graduate school, in 1980 the total market-ready supply of new entrants at the graduate degree level is approximately 3,000, or at least twice the total projected number of openings for jobs estimated to require at least five years of college.

For all social sciences together, not only does the supply at the advanced level exceed projected demand by at least two to one, but the total supply at all degree levels exceeds all projected openings by eleven to one. These comparisons appear to bode nothing but gloom for social science graduates. However, the labor market for social science graduates has never been narrowly confined only to those occupations that relate specifically to one of the social science specialties. Indeed the history of industry and government recruitment of professional-technical-managerial staff during the 1960's indicates that social science graduates filled slots throughout a broad range of the job spectrum outside of what might be narrowly defined as social science occupations.

A 1971 follow-up study of the employment of 1961 freshmen who completed bachelor's or higher degrees shows that for both men and women there was a great deal of shifting from 1965 social science career choices upon graduation to other occupations six years later.⁸ (In that study "social science" is defined to include psychology and social work.) Only 15 percent of the men and 19 percent of the women who had planned to be in social science occupations in 1965 were actually employed as social scientists in 1971. This 15 to 19 percent realization rate of 1965 plans was much lower for social science initial choices than for other disciplines. ("Defections" from original social science choices, however, were almost offset by an equal number of non-social science switches to eventual employment in social science occupations.)

To what occupations did graduates who in 1965 chose social sciences as a career gravitate by 1971? Among men, 22 percent were in business-related occupations, 20 percent in "other" professions (including social work), 13 percent in elementary and secondary education, and five percent in college teaching. Among women, 20 percent were in business-related occupations, 27 percent in "other" professions (again including social work), 12 percent in elementary and secondary teaching, and six percent in college teaching.

As would be expected, the 1971 realization rate of 1965 career choices was lower for graduates who obtained a bachelor's as their highest degree than for all graduates, including those with advanced degrees. Defections from social science were much higher among

graduates with only a bachelor's than when all graduates are considered. Only three percent of the men with bachelor's who chose the social sciences in 1965 were employed as social scientists in 1971, as compared to the 15 percent realization rate noted for all men, at all degree levels. The same reduction in realization rate was noted for women with only a bachelor's degree.

The findings of the study emphasize that "the majority of business administrators, both men and women, did not major in business... Among men business administrators, 30 percent majored in social sciences... Social sciences were the primary source of women business administrators (41 percent reported this major)..."⁸

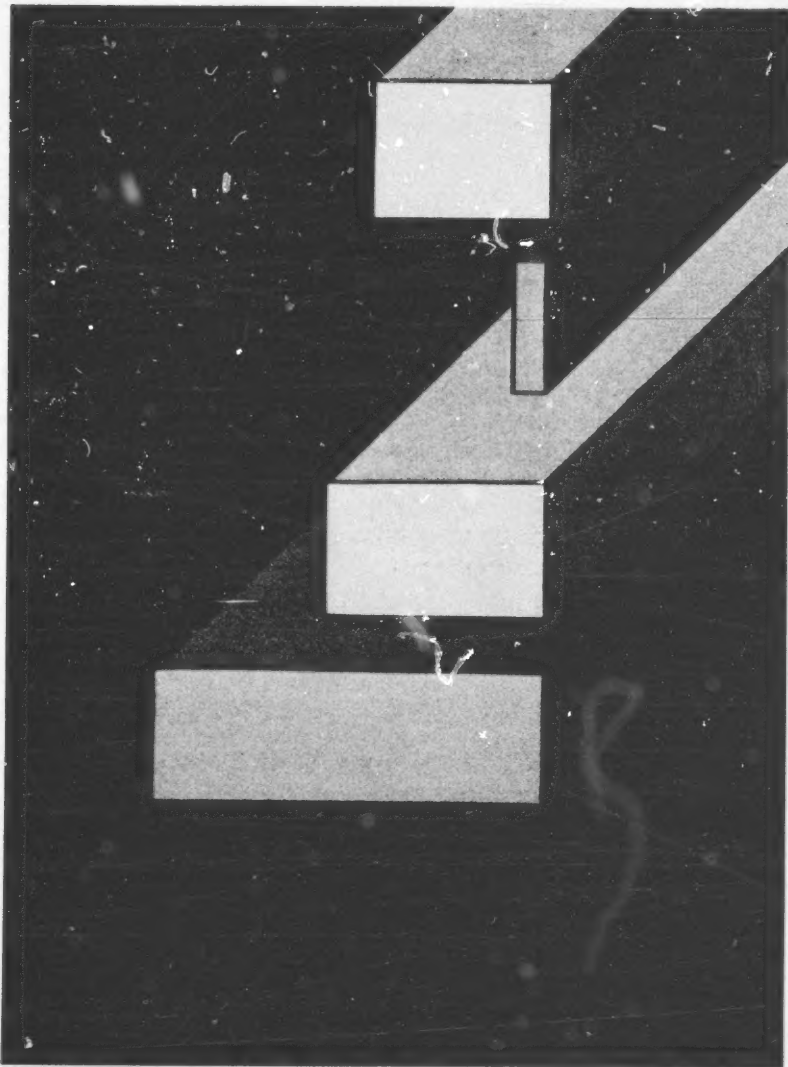
The question arises whether social science graduates who are employed in other areas are satisfied. A Bureau of Labor Statistics study of 1972 graduates at all degree levels found that of the employed social science graduates (including those from psychology and social work) in the fall of the same year, 26 percent had found work they considered only "somewhat related" and 29 percent were engaged in work they considered "unrelated" to their field of study.⁹ Only in the humanities did a higher percentage of graduates report such large discrepancies. The reason most frequently cited by social science graduates for taking jobs considered to be unrelated was "only job could find" (44 percent of all reasons).

Involuntary defection, or leaving the field for which one has studied because of inability to locate a job in the field, may affect satisfaction with work. A 1974 followup of the 1965 college graduates described earlier indicates that there is less job satisfaction among those working in nonrelated fields because they could not find jobs in their own field than among graduates who work in their own fields or who left their fields voluntarily.¹⁰ Thus, despite the fact that social science graduates may well find jobs in unrelated fields, some may not find their careers as rewarding over the long run as might be true if they had majored in subjects more related to their eventual jobs.

Social science graduates in the future may continue to expect employment in business-related jobs. Another publication of the *SREB Manpower and Education series* indicates that the 1980 supply of graduates in business and management in the South will be insufficient to fill the openings in "business" occupations in the private and public sectors of the economy.¹¹ Indeed the demand is projected as twice the number of business and management market-ready graduates. See Figure 1. Social science majors in the South will continue to find openings in occupations such as bank officers, sales representatives, buyers, personnel workers, and managers and administrators. However these social science graduates will be competing against a growing number of graduates in business and management, who in many instances will have been prepared in their college work with marketable, specialized

skills in accounting, personnel administration or marketing. These courses to date have seldom been included in a typical social science graduate's educational background, except perhaps for economics majors.

A recent College Placement Council survey of employers revealed



that liberal arts hiring has decreased in the last five years. Three-fourths of the employer respondents indicated that they filled less than 10 percent of their new college hires from the ranks of liberal arts graduates. Significantly, however, about three-fourths of these same employers indicated that they would hire more liberal arts graduates if they had certain business-related courses or if they had done co-op or other experiential work.¹²

The admonition on inclusion of work experience and practical "skill" courses in the preparation of social science graduates for the sake of improving their employability is a theme heard more and more frequently. This emphasis is not meant to belittle the value of a broad-based education that enables a student to think and evaluate across a wide array of problems, but rather to improve the initial utilization of such abilities to analyze and synthesize. Employers in a competitive buyers' market are in a better position than ever to insist on graduates who meet immediate needs rather than to provide on-the-job training in practical or specialized aspects of the work to be done.

The need for social science graduates to look beyond the perimeter of jobs readily recognized as social science ones in order to enhance the level of likely employment has been stressed recently by social science educators. This has been particularly evident for employment of graduates at the bachelor's level in the social sciences. For example, a recent publication by the American Anthropological Association admonishes students to look beyond the confines of traditional anthropologists' positions. "...So if you like anthropology as a major but wonder about how well you'll do at job time, the answer is this: traditionally anthropology students have not learned how to turn their excellent liberal arts degree into a good job; if you prepare yourself with the proper mix of electives and skills, there is no reason why you should not be competitive with BA's from other fields."¹³

The Political Science Association in counseling political science graduates about job searches suggests, "...a solid grounding in mathematics and statistics along with experience in computer technology increases a student's value as a prospective employee ... Also, anyone who seeks a good job in the next decade has a vested interest in mastering the English language, particularly in its written form...the ability to write cogent, well reasoned statements is rewarded. The failure to master written English is an enormous handicap."¹⁴

Geographers conducted a detailed survey of their 1974 graduates at all degree levels and on that basis developed a profile of likely employment outcomes for geography majors.¹⁵ This profile suggests that over half of all geography majors at all degree levels, will engage in "miscellaneous pursuits" unrelated to geography. Thus, for a large proportion, geography constitutes a liberal arts education rather than preparation oriented toward a specific occupation. Geography is a discipline with

growing involvement in planning and ecological problems, so that additional course emphasis in these areas may widen the employment horizon for this social science major.

No one expects, of course, that a student majoring in one of the social sciences will finish his bachelor's requirements with as much proficiency in a different field, such as computer programming, accounting or personnel administration, as a student majoring in one of these fields. Yet a grounding in the principles of such vocationally-oriented fields may be obtained in college by "minoring" in these subjects. Basic acquaintance with one of the skills or tools of business administration combined with a broader education in one of the social sciences, provides needed competency for entry jobs and a foundation from which to develop careers.

In order to include a core of basic courses in a "minor", a student may need to increase his course load at some point during the four undergraduate years, to add a summer quarter, or to sacrifice electives that might otherwise have interested him. This may be the price for sticking to a social science undergraduate major for which the job market is limited.

Attempts to broaden the employment horizon for social science graduates are not limited to those concerned only with bachelor's degrees. The Rutgers University Graduate Department of Sociology, for example, recently launched a concerted effort to identify and ferret out "unobtrusive", not previously readily recognized, opportunities for sociologists. "This kind of effort represents an intervention in the labor market and an attempt to broaden the scope of career opportunities for sociologists...It tries to generate additional career opportunities, especially in the area of public employment..."¹⁶

Although social science graduates may continue in the coming years to consider business-related jobs as fertile territory for employment — especially if they have had the foresight of including practical experience or specialized courses — teaching will not offer them the employment opportunities enjoyed in the 1960's. As noted earlier, follow-up studies show that a substantial percentage of social science male and female graduates in the 1960's were employed in elementary and secondary education. Currently an estimate of the distribution of teaching certificates among projected non-education majors yields a total of 3,220 new bachelor's and master's degree holders certified to teach social sciences for the region in 1980. As indicated in another publication of the *SREB Manpower and Education series*, the 1980 outlook for graduates in teaching is bleak, unless a major downward adjustment occurs in the number of college students who choose education majors.¹⁷ The outlook is poorer for teachers in the social sciences than in any other subject area. The Comptroller General of the U.S. in a 1973 survey of state departments of education, school districts and colleges

and universities determined that the excess of applicants over demand was more prevalent in social science than in any other field. One hundred percent of all state departments of education reported such an excess. The next most prevalent "excess" field was English language arts, with 91 percent of all departments reporting an oversupply. Similarly the proportion of graduates reported unable to find a teaching job was greater for social sciences than in any other subject area.¹⁸

Supply and Demand for Ph.D.'s in the Social Sciences

As stated earlier, graduates in political science, economics, sociology and other social sciences are not usually considered to be "social scientists" until they have either completed the Ph.D. degree or gained an equivalent experience. According to this traditional view, the supply and demand balance for social scientists may be best measured in numbers of Ph.D.'s.

The National Science Foundation (NSF) periodically assesses the outlook for doctorates in science and engineering and includes in these projections a "social science" category.¹⁹ The NSF definition of social science closely parallels the definition used in this report.

The NSF assessment categorizes demand in two major segments: employment in a scientific activity, and in "non-science" positions. The scientific category includes both academic and non-academic employment. As shown in Table 4 and Figure 2, in 1985, according to the NSF projections, only three-fifths of all social science Ph.D.'s will be employed in scientific activities, as compared to 89 percent in 1972. This, of course, does not imply that the balance will be unemployed or even underemployed. Indeed, the salaries earned by those employed in "non-scientific" activities in 1972 exceeded salaries earned in scientific activity.

The distribution of NSF-projected employment of Ph.D. social scientists in "scientific activity" positions shows a switch away from academic and research related work to "other" employment. For Ph.D.'s in all sciences, NSF describes the work in this "other" category as production, control, consulting, marketing and quality control. The increase projected in Ph.D.'s involved in these activities implies an upgrading of the 1972 educational attainment level of the labor force engaged in such work.

In 1972 only six percent of all social science doctorates employed in scientific activity were working for private industry. This is a much lower proportion than for any of the other science and engineering disciplines. The NSF-projected increase of social scientists employed in non-academic and non-research-development activity implies their increased utilization by the business sector.

The changing trend in the utilization of future social science doctorates is evident when one considers that 65 percent of all 1972-1985 openings (resulting from expansion and from replacement needs) are projected by NSF to occur either in non-scientific activities, or in scientific activities outside of the academic and research-development

Table 4

Employment Prospects of Ph.D.'s in Social Sciences, 1980-85

	1972	1980	1985
Total Social Science Ph.D.'s in Labor Force	52,500	88,000-90,000	113,000-122,000
*Employed in Scientific Activities	46,900 (89%)	64,000-65,000 (72-73%)	71,000-73,000 (60-63%)
Employed in Non-Scientific Activities	5,000 (9.5%)	24,000-25,000 (27-28%)	42,000-49,000 (37-40%)
Unemployed	600 (1.1%)		

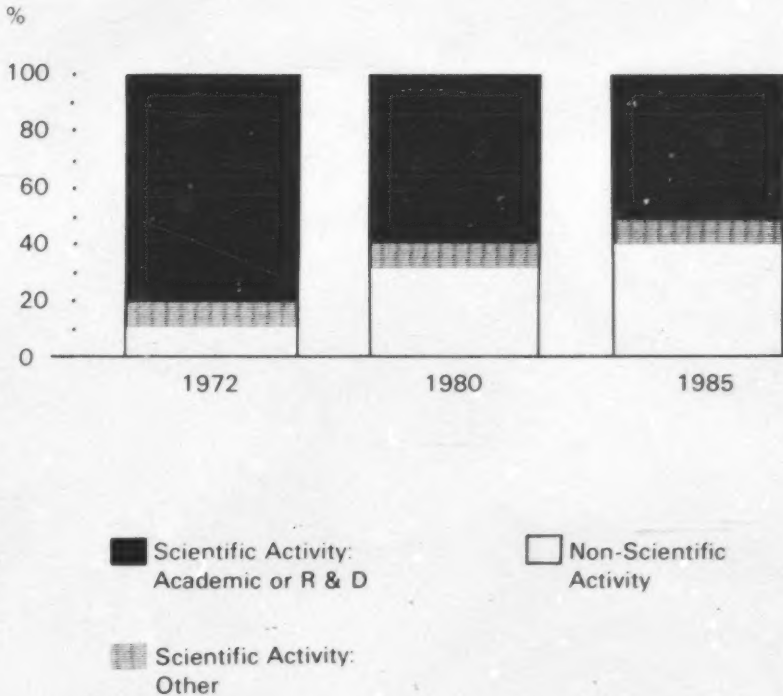
****Projected Distribution of Social Scientists
Employed in Scientific Activity***

	1972	1980	1985
Academic	78%	77%	72%
Non-Academic			
Research & Development	11	10	11
Other	11	13	17

Source: National Science Foundation, *Projections of Science and Engineering Doctorate Supply and Utilization 1980 and 1985*, Feb. 1975, pp. 11, 12 and 22.

Figure 2

Utilization Projections of Social Science
Ph.D.'s, 1972-1985



Source: National Science Foundation *Projections of Science & Engineering Doctorate Supply & Utilization 1980 and 1985*, Feb., 1975.

areas, as compared to only 20 percent of the total 1972 social scientist labor force so engaged. The reduced utilization of Ph.D.'s in academic and in research-development reflects the halt in the previous expansion of higher education and federal research support.

The gap between new social science doctorates and the number of openings in academic and research-development work which NSF now

projects for 1980 is greater than that anticipated by NSF in its 1971 projection. This gap for 1980 has increased 20 percent over the previous projection. Although the NSF projections are for the entire nation, they are applicable to the South, since the doctorate labor market historically has been national in scope. Even if the job expansion is less curtailed in the Southern region than nationally, (as regional colleges and universities seek to catch up in Ph.D. representation on their faculties) the doctorates produced in other parts of the nation will compete with those produced by Southern institutions for the available openings.

Economics

The following sections dealt with social science graduates and occupations generically — without differentiating by disciplines. At the Ph.D. level, where the correspondence between specialized fields and relevant occupations is more established than at the bachelor's and master's levels, it is possible to examine social science specialties separately, and to assess differentially between fields that appear more favorable than others.

Economists, who by virtue of their professional interests would be expected to have given early attention to the supply-demand situation for their own discipline, devoted considerable time to their job prospects at the 1970 American Economic Association (AEA) meeting. Dr. Allan M. Cartter alerted the AEA to a projected over-supply of Ph.D.'s in economics for the ensuing ten to fifteen year period.²⁰ As he had done in earlier warnings on the worsening situation for Ph.D.'s generally, he outlined the underlying changes in the college age population and participation rates which result in a declining demand for new Ph.D. faculties in economics during the 1970's and 1980's. During the 1960's, 65 percent of all economics doctorates found employment in academia, so that this sector of the job market is vital in the assessment of their outlook.

As shown in Figure 3, even after taking into account that only two-thirds of all economics Ph.D.'s may be expected to enter the academic labor market, both the Cartter and the USOE degree projections indicate a serious oversupply for the academic sector. The Cartter oversupply may be somewhat overstated because current data indicate a moderation in the trend of increased Ph.D. production. The USOE projection, however, of only 860 new doctorates in 1980 as compared to Cartter's 1,352, may be understated.²¹ According to the USOE, doctorates in economics will constitute only 2.1 percent of all doctorates in 1980, as compared to 2.7 percent in 1970. Indeed, the USOE projection allocates a lower percentage of total social science Ph.D.'s to economics in 1980 (16 percent) than in 1970 (19 percent). Although the market for new economics doctorates is not as favorable now as it was in 1970, it has

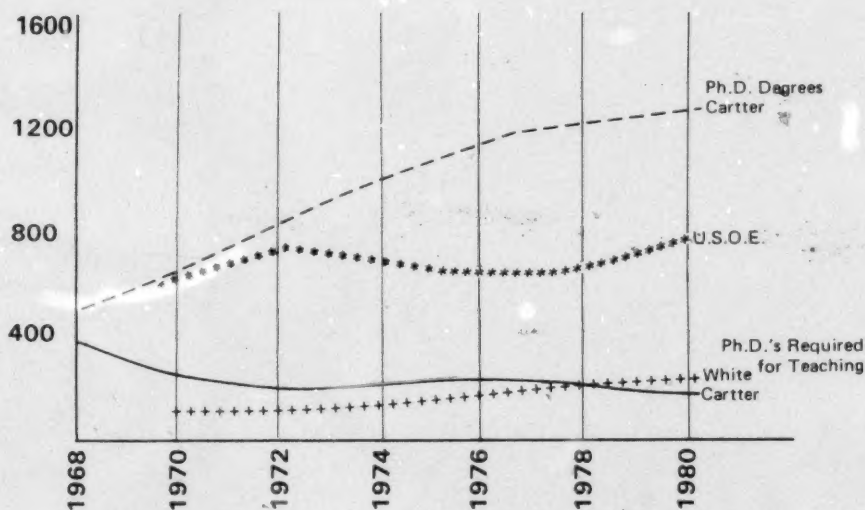
not deteriorated as rapidly as for the other social sciences and from that perspective does not point to a share reduction in number of doctorates.

On the assumption that economics doctorates will maintain a 2.5 percent share of the current total USOE projections of 41,200 new doctorates in 1980, 1,030 economics doctorates might be expected in that year. If two-thirds continue to seek higher education posts, they will exceed teaching openings by a minimum of 2 to 1.

Although the percentage of new economics Ph.D.'s reporting no specific employment prospects upon receipt of their degrees rose from 3.1 percent in 1968 to 6.4 percent in 1973, the percentage in each of these five years was well below that reported for chemistry, electrical engineering, English and psychology.²² Moreover, if faculty requirements were the only variables affecting employment of new Ph.D.'s in

Figure 3

Projected New Ph.D.'s in Economics and Additional Number Required in Teaching, 1968-1980



Sources: Allan M. Cartter, "Whither the Market for Academic Economists," *American Economics Association*, May 1971, p. 307; USOE unpublished preliminary projections, and Rudolph A. White, "Managing Business Doctoral Programs for the 70's — Cutback or Continued Growth," *American Association of Collegiate Schools of Business Bulletin*, January 1972, p. 52.

economics, a "no prospects" rate exceeding 6.4 percent would have been expected in 1971. The fairly modest "unemployment" rate reported for 1973 economics doctorates indicates either that a higher proportion is finding employment in the non-academic sector (business and all levels of government) or that the demand for Ph.D.'s on faculties has been underestimated. The former conclusion appears to be the more likely one, and points to the probable absorption trends of economics doctorates in coming years of what would otherwise be a serious oversupply.

The supply-demand outlook for economics doctorates in academia in the South would be brighter if the region were insulated from the projected oversupply nationally. As was shown in Table 3, the 1980 demand for college economics professors for the region is projected at 118-184 according to the DES and NPA data sources. On the assumption that of these openings 58 percent will be required at the Ph.D. level,³ a regional academic demand of 70-107 openings is generated for new Ph.D.'s. In 1972 Southern institutions produced 113 economics doctorates, which may be expected to increase to 140-150 by 1980 if the Southern economics doctorate share of U.S. degrees remains constant. On the assumption again that the proportion of new doctorates seeking academic employment is 65 percent, the regional supply becomes balanced against the number of openings. Additionally, as shown in Table 3, according to both the DES and NPA data sources, 400-460 regional openings are projected for non-academic economists with at least five years of college. Altogether these indications point to a relatively favorable outlook for professional economists in the region.

Sociology

According to a survey by the American Sociological Association, in 1974 there were 166 net openings in graduate and non-graduate departments (in universities and colleges, including two-year schools) to absorb 563 new sociology doctorates seeking academic employment. This contrasts with 1,473 positions reported in 1971 for 488 applicants.²⁴

Although authorities reach different conclusions about the number of Ph.D. sociologists in the labor force in 1980 (and even in 1970), they agree that the employment outlook is not promising. McGinnis and Solomon, who project the number of new doctorates in sociology on the basis of federal expenditures for scientific research and development, find that by 1980 new Ph.D.'s will equal 7.1 times the number of available graduate faculty positions.²⁵ Adkin, who bases his projections on more optimistic assumptions on trends in total college and sociology enrollments, sees a continuing rising demand for sociology Ph.D.'s on faculties to 1980, with a subsequent sharp decline for the remainder of

the decade.²⁶ Even under his projections, however, while 91 percent of all new sociology Ph.D.'s found academic employment in 1970, only 70 percent will be thus accommodated in 1980, with the percentage falling to 31 percent by 1985. This means that employment of the remainder will depend upon expanded opportunities in staff and managerial positions in business and government. Whether expansion will occur of proportions that will provide sociologists with opportunities to productively apply their special background is a question he does not answer.

In 1972 the Southern region produced 114 sociology doctorates. This number may be expected to increase to 130-150 by 1980, with the higher limit probable if the increased share of sociology Ph.D.'s to total Ph.D.'s envisaged by the USOE on a nationwide basis materializes. As shown in Table 3, the 1980 openings for sociology college teachers with at least five years of college is projected as 190-250 in the region. This includes openings in the two-year colleges where the percentage of sociology doctorates on faculties has been below 10 percent. On the assumption that 37 percent of the total regional openings for sociology college teachers (including two-year colleges) will require the Ph.D. degree,²⁷ the 1980 projected openings in the region would accommodate approximately half the new sociology doctorates produced in the South. Even in the context of competition from sociology doctorates from other regions in a national job market at the Ph.D. level, these data do not project as gloomy an academic job market as the other reports seem to indicate. Indeed, although national reports on openings versus graduates portend a tight market for doctorates, reports from selected universities on the placement of their new doctorates do not presently bear out the gloomy statistics.

History

Although not as much quantitative data have been amassed on the future outlook for Ph.D.'s in history as in economics and sociology, present evidence suggests that the prospects for history Ph.D.'s are dismal. During recent annual meetings of the American History Association, the number of new Ph.D. applicants exceeded the number of openings by at least four to one. A 1974 survey of graduate history departments revealed that many graduates have been unable to find history-related jobs.²⁸

The extremely tight job market resulted in passage by the American History Association in 1974 of a resolution on the "job crisis."²⁹ The resolution stresses remedies intended to spread the available work (such as early retirement of present faculties and limitations on employment of non-academic history teachers) and warns prospective graduate students that if they are determined to stay in history, they should include courses to prepare for secondary school teaching or for jobs in

business. In an open letter to prospective graduate students, the American History Association warns them that before committing themselves to advanced studies they should be aware of very limited employment opportunities.

These rather unprecedented steps by a learned society indicate the severity of the situation. Adjustments in the oversupply may already be under way. Both the number of enrollees and bachelor's in history were down in 1974 relative to 1971.³⁰ These declines may herald an eventual decline in the number of Ph.D.'s in history (contrary to present preliminary USOE projections). However a future adjustment on the supply side (reduced number of Ph.D.'s in history because of declining overall history enrollments) implies a concurrent decline on the demand side, in the form of fewer students requiring history professors, so that the adjustment from this factor would do little to improve the overall situation.

In the South 240 Ph.D.'s in history were awarded in 1972. Unless there is substantial reduction in this number by 1980, when projections indicate 90-175 openings for history college teachers with five or more years of college in all Southern higher education institutions, the current imbalance will persist. On the same assumption used earlier that 37 percent of these openings would be filled by Ph.D.'s if current levels are maintained, the number of new Ph.D.'s in the region would exceed openings by at least three to one.

Political Science

Analysis of the job market for political science doctorates projects the same excess of Ph.D.'s relative to openings observed in the other social sciences. The American Political Science Association survey of its graduate departments in 1974 revealed that of 1,050 firm job candidates (with Ph.D.'s or with "all but dissertation") only 67 percent were successfully placed in political science positions. This percentage is down from 73 percent in 1973 and 70 percent in 1972.³¹

Doctorates in political science for the next ten to fifteen years will face the same problem of decreasing opportunities in the academic sector noted in the other specialties. Seventy-five of all political science professionals are employed in academic positions. While the number of academic openings for Ph.D.'s is not likely to exceed 300 in any single year during the next decade, the number of new doctorates in political science (including the associated disciplines of public administration and international relations) is expected to be at least 1,000 annually.³² A gradual downward adjustment in output of degrees is probable, especially since substantial declines in Ph.D. enrollments in political science programs began in 1970. However, the overproduction of doctorates is likely to persist despite these adjustments.

Absorption of the excess of political science doctorates will depend on whether junior colleges might hire more Ph.D.'s and on the employment possibilities in business and government. Over the past three years placements of political science doctorates in two-year colleges did not change. The 1970 National Register of Scientific and Technical Personnel showed only two, ten and three percent of all political scientists employed in industry and business, government, and nonprofit institutions respectively. To absorb the excess Ph.D.'s who will not find employment in higher education, these percentages would have to increase materially. Although the American Political Science Association has begun efforts in this direction through development of internships in private business and initiation of a "federal employment news-service," it will be difficult to provide sufficient expansion to absorb the projected surplus.

Summary and Conclusions

When the projection of social science graduates at all degree levels who will enter the job market in 1980 is compared to expected openings in social scientist occupations, the graduates exceed the openings by eleven to one. The supply-demand balance for these social science graduates, however, is not as gloomy as this ratio might indicate.

At the bachelor's level it has always been true that social science graduates have had to look beyond jobs labeled "social scientist" to find employment because with only a bachelor's degree they are generally not considered to be social scientists. Indeed, during the 1960's, the expansion of managerial and administrative jobs in business and industry was largely staffed by graduates with non-business administration degrees. The general background which the social sciences and other liberal arts afforded were sufficient to enable graduates in these fields to obtain jobs across a wide variety of occupations.

Graduates at the bachelor's level in the social sciences will continue to find opportunities in countless managerial and administrative occupations, both in business and in government. But with increasing competition for these jobs, it becomes more important that social science graduates enter the labor market equipped with saleable skills such as acquaintance with computer technology, statistics, accounting or personnel administration. Social science graduates with a minor or concentration in a vocationally-oriented field will find the job search easier.

In previous years many social science graduates obtained social science teaching jobs at elementary or secondary levels. The very tight teaching job market has considerably narrowed this option especially for social science graduates, and the situation will probably continue to remain tight into the 1980's.

The projected supply of advanced degree graduates in the social sciences in the region ready for entry into the job market in 1980 exceeds the projected number of openings in all occupations identified as "social scientist" by more than two to one. This ratio is obtained when only those openings are considered which are expected to be filled by persons with at least five years of college.

Ph.D.'s in the social sciences are also encountering difficulties in the job search. Traditionally their primary source of employment has been in academic teaching and research. This market has been constricted recently, and will continue responding to diminishing growth of college enrollments. Although the rate of production of Ph.D.'s may have fallen

from its climax in the early 1970's, there are still more social science Ph.D.'s emerging from graduate programs than the academic market can absorb during the next 10 years. This means that more of these Ph.D.'s will have to turn to non-academic sources to find suitable employment. In some social science disciplines their prospects are more favorable than in others. Those disciplines producing the Ph.D.'s who can adapt themselves to applied rather than to theoretical work are more likely to encounter expanding opportunities in the non-academic sector. Ph.D.'s in economics, for example, although they too will find the teaching and university research market considerably tighter than in previous years, will be in a better position to obtain jobs in private industry and government than Ph.D.'s in a discipline such as history.

In the past, junior colleges have not absorbed any substantial numbers of Ph.D.'s, partly because these institutions feel Ph.D.'s are oriented to research and theory rather than to teaching undergraduates. Yet junior colleges comprise the institutions of higher education where enrollments are growing most rapidly. Redirecting the training of Ph.D.'s to emphasize teaching skills at the lower levels would enhance their employment opportunities in the academic sector.

In the currently tight job market the emphasis for college graduates to consider career education and vocational courses should not be interpreted as a rejection of the value of a broad-based education. Indeed, solutions to problems encountered by managers and administrators in business and government demand perspectives that encompass the skills of the generalist, or of one who can build bridges between disciplines. Generally the training of a social science or other liberal arts major is more likely to engender a broad view of human affairs than is a more narrow, vocationally-oriented education. The breadth of a social science education will continue to be valuable in the conduct of business and government. Marketable, vocationally-oriented skills are important adjuncts, however, to gaining entry into the job market.

The dual nature of what is needed in the manpower situation of the foreseeable future, with an oversupply of college graduates relative to the traditional professional, technical and managerial openings, places an added burden on college graduates. While their predecessors might have found it sufficient to master a vocational field, or alternately to obtain a broad-based liberal arts education, today's graduates are well advised to try for both directions. Those who can meet this enlarged challenge will probably be the ones who succeed in a job market quite different from that faced by college graduates just a few years ago.

NOTES

¹U.S. Bureau of the Census, *Selected Characteristics of Persons in Fields of Science and Engineering: 1974*, Current Population Reports, Special Studies (P-23), No. 53 (Washington, D.C.: U.S. Government Printing Office, 1975) p. 29.

²*Ibid.*

³Ann S. Bisconti, *College Graduates and Their Employers*, College Placement Council Foundation Report 4, 1975, p. 28; and U.S. Bureau of Labor Statistics, *Employment of Recent College Graduates*, Special Labor Report 169, (Washington, D.C.: U.S. Government Printing Office, 1974), p. A-14.

⁴U.S. Bureau of Census, *op. cit.*, p. 42.

⁵American Historical Association *Newsletter*, September, 1974; and Alexander Astin, et al, *National Norms for Entering College Freshmen, 1969, 1974* (American Council on Education).

⁶Richard A. Engels and Eva C. Galambos, *The Supply and Demand for College Graduates in the South, 1980* (Atlanta, Georgia: Southern Regional Education Board, 1975).

⁷*Ibid.*

⁸Ann S. Bisconti, *op. cit.*, pp. 14-15 and 26.

⁹U.S. Bureau of Labor Statistics, *op. cit.*, p. 36.

¹⁰Lewis C. Solmon and Ann S. Bisconti, unpublished paper presented at College Placement Council meeting, Washington, D.C., May 29, 1975, p. 6.

¹¹Eva C. Galambos, *The Employment Outlook for Business and Management Graduates in the South*, (Atlanta, Georgia: Southern Regional Education Board, 1975), p. 7.

¹²College Placement Council, Inc., *Four-Year Liberal Arts Graduates*, (Bethlehem, Pennsylvania, 1975) p. 3. (Liberal arts, in the CPC Definition, includes the social sciences.)

¹³American Anthropological Association, *Anthropology and Jobs — A Guide for Undergraduates*, (Washington, D.C., 1975), p. 2.

¹⁴Mary A. Curzan, *Careers and the Study of Political Science*, (Washington, D.C.: American Political Science Association, 1974).

¹⁵"Supplementary Report from the Committee of the Profession," *Newsletter*, Association of American Geographers, June-July 1975, p. 17.

¹⁶"Rutgers Searches for Non-Academic Jobs for Sociologists," *American Sociological Association Footnotes*, December 1974, p. 4.

¹⁷Arthur H. Padilla, *The Market for Teachers in the Nation and the Southern Region*, (Atlanta, Georgia: Southern Regional Education Board, 1975).

¹⁸Comptroller General of the U.S., *Supply and Demand Conditions for Teachers and Implications for Federal Programs*, (U.S. General Accounting Office, Washington, D.C., 1974), p. 19.

¹⁹National Science Foundation, *Projections of Science and Engineering Doctorate Supply and Utilization, 1980-1985*, NSW 75-301, Washington, D.C., 1975.

²⁰Allan M. Cartter, "Whither the Market for Academic Economists?" *American Economic Review*, May 1971, p. 305.

²¹U.S. Office of Education unpublished preliminary projections, 1975.

²²David W. Breneman, *Graduate School Adjustments to the "New Depression" in Higher Education*, National Board on Graduate Education, Washington, D.C., 1975, p. 46.

²³Allan M. Cartter, *op. cit.*, p. 305.

²⁴"Academic Job Market Report: Some Good News and Some Bad News," *American Sociological Association Footnotes*, December 1974, p. 7.

²⁵Robert McGinnis and Louise Solomon, "Employment Prospects of Ph.D. Sociologists During the Seventies," *The American Sociologist*, May 1973, p. 60.

²⁶Douglas L. Adkins, "The Manpower Future of Anthropologists and Sociologists" unpublished paper, 1973, p. 45.

²⁷6.6 percent of junior college faculties had Ph.D.'s in 1972-73, and 42.2 percent of all other higher education institution faculties had Ph.D.'s. Weighing junior colleges by 18.2 percent (or the percentage they had of total faculties) and other institutions by 81.8 percent, results in a 37 percent average rate of Ph.D.'s on all faculties. Alan E. Bayer, *Teaching Faculty in Academe: 1972-1973*, American Council on Education, 1973, p. 8.

²⁸American Historical Association *Newsletter*, February 1974.

²⁹American Historical Association *Newsletter*, March 1974.

³⁰American Historical Association *Newsletter*, September 1974.

³¹Thomas E. Mann, "Report of the Committee of Department Chairpersons, Placement of Political Scientists in 1974," *Political Science*, Fall 1974, p. 419.

³²Thomas E. Mann, "Employment of Political Scientists in the 1970's: Problems and Prospects," paper delivered at 1973 meeting of the Midwest Political Science Association, p. 20.